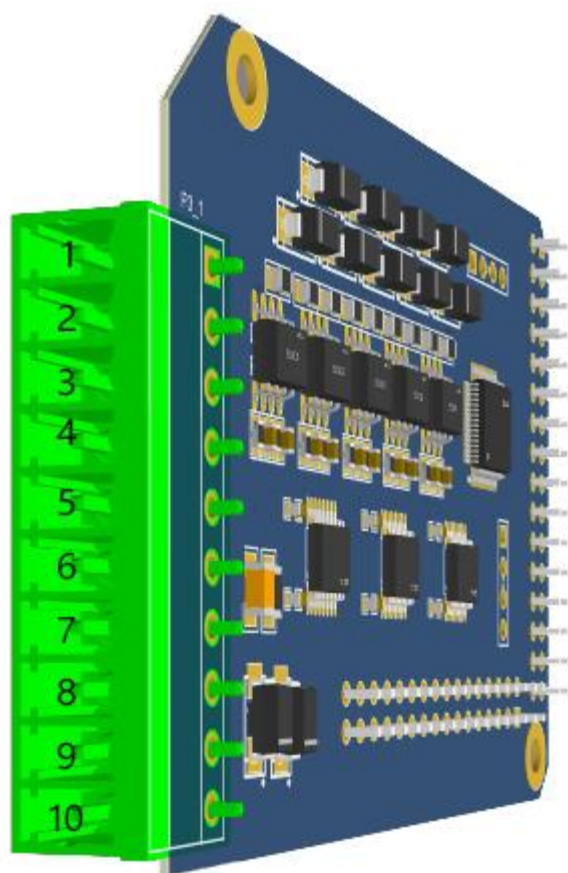


Y Series I/O Modules

4CH TC Input Module Y58



Y58 User Manual

Version: V1.0

Date: 2024-12-20

Shenzhen Beilai Technology Co.,Ltd

Website: <https://www.bliiot.com>

Preface

Thanks for choosing BLIIoT Y series I/O modules. These operating instructions contain all the information you need for operation of Y series I/O modules.

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Disclaimer

This document is designed for assisting user to better understand the device. As the described device is under continuous improvement, this manual may be updated or revised from time to time without prior notice. Please follow the instructions in the manual. Any damages caused by wrong operation will be beyond warranty.

Revision History

Revision Date	Version	Description	Owner
2024/12/20	V1.0	Initial Release	HYQ

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1 Introduction

1.1 Overview

The thermocouple input module is one of the Y series I/O modules for IOy series and ARMxy series products.

This module features 4 input channels: TC1, TC2, TC3, and TC4, supporting the acquisition of J, K, E, T, S, R, B, and N-type thermocouple signals.

The input signals for each channel are electrically isolated, converted into digital signals, and transmitted with 16-bit resolution.

1.2 Technical Specifications

Name	Parameter	Description	
Power Supply	Operating Voltage	Internal Voltage	
	Power Consumption	0.192W	
Thermocouple Input	Channels	4CH	
	Sensor Type	J/K/E/T/S/R/B/N type thermocouple	
	Resolution	16Bit	
	Accuracy	±0.5% @25°C	
	Conversion Rate	400 ms	
	Measurement range:	J	-210~1200°C
		K	-200~1372°C
		E	-200~1000°C
		T	-200~400°C
S		-50~1768°C	
R		-50~1768°C	
B		250~1820°C	
N	-200~1300°C		
Certifications	EMC	IEC 61000-4-2 (ESD) Level 3	
		IEC 61000-4-4 (EFT) Level 3	
		IEC 61000-4-5 (Surge)Level 3	

2 Wiring

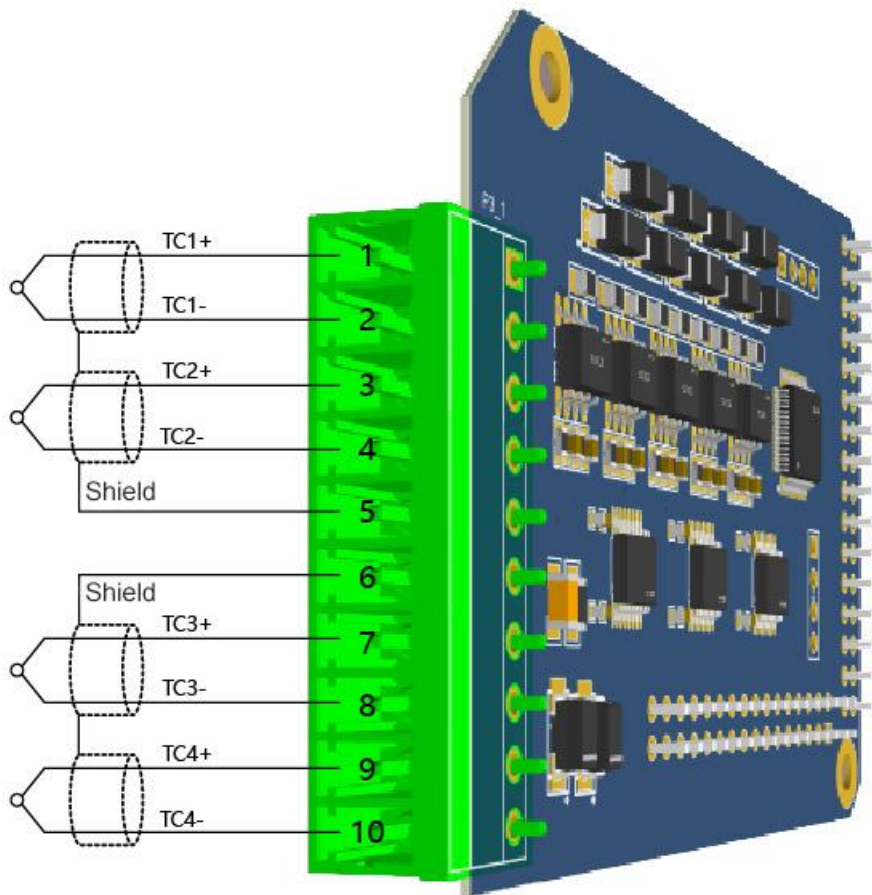
2.1 Terminal Definitions

Notice: Please refer to the product's label for the specific terminal numbering sequence.



Terminal NO.	Definition	Description	Terminal NO.	Definition	Description
1	TC1+	First Channel Thermocouple	6	GND	Connect Shielded Wire
2	TC1-	Input	7	TC3+	Third Channel Thermocouple
3	TC2+	Second Channel Thermocouple	8	TC3-	Input
4	TC2-	Input	9	TC4+	Fourth Channel Thermocouple
5	GND	Connect Shielded Wire	10	TC4-	Input

2.2 Connection Example



3 Warranty Terms

- 1) This equipment will be repaired free of charge for any material or quality problems within one year from the date of purchase.
- 2) This one-year warranty does not cover any product failure caused by man-made damage, improper operation, etc

4 Technical Support

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